ELECTRICAL MANUAL

SAC 1A

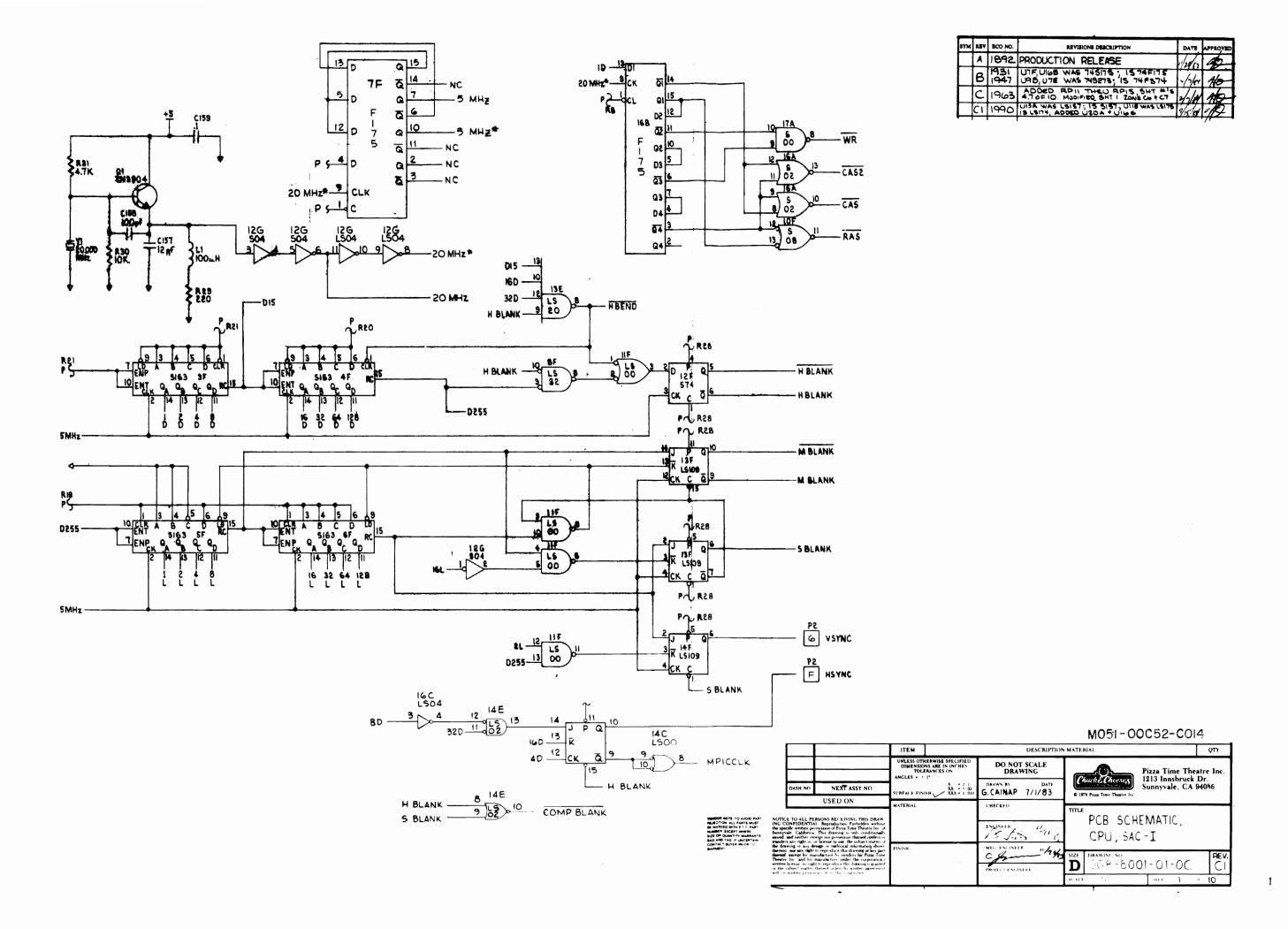


MIDWAY MFG. CO.

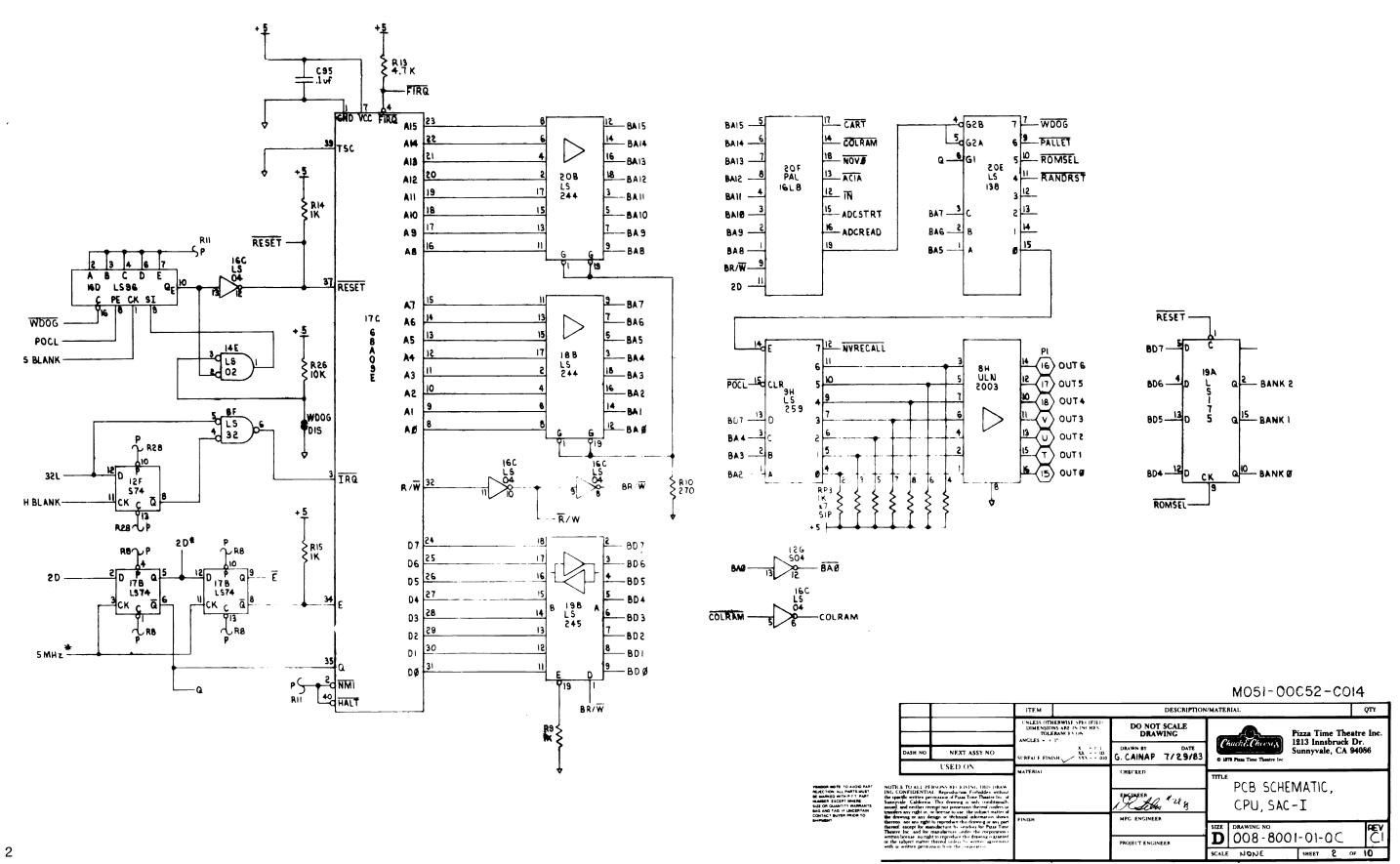
10601 W Belmont Avenue Franklin Park, Illinois 60131 U.S.A.

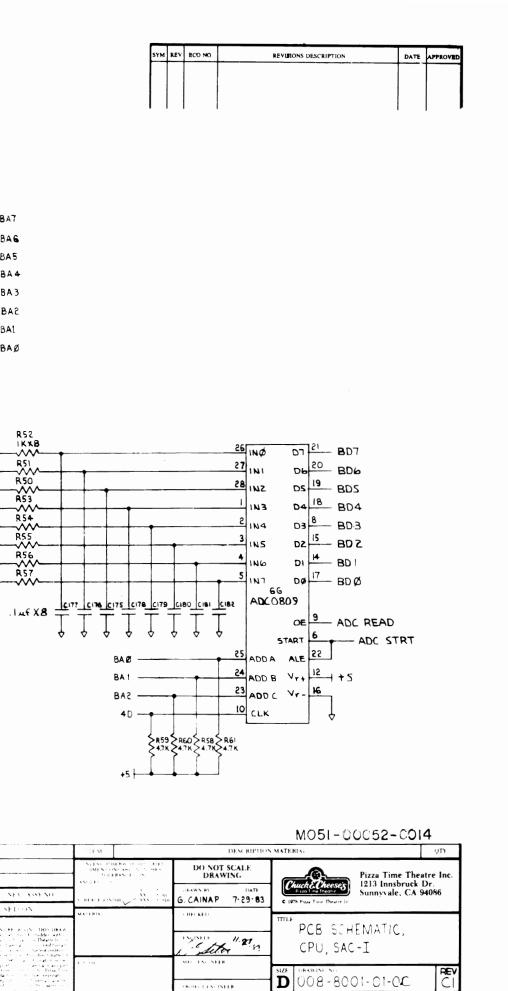


Phone (312) 451-9200 Cable Address MIDCO Telex No.: 72-1596

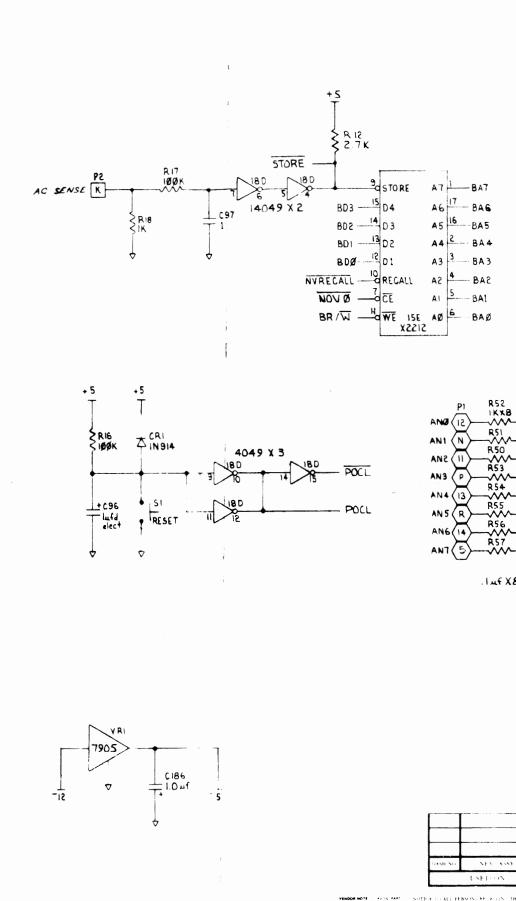


SYM REV	BCO NO.	REVISIONS DESCRIPTION	DATE	APPROVE
		:		





R53 R54 R55 R55 R56 R57



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(AS REQ'D)

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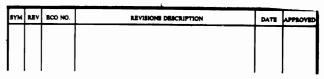
- BD4

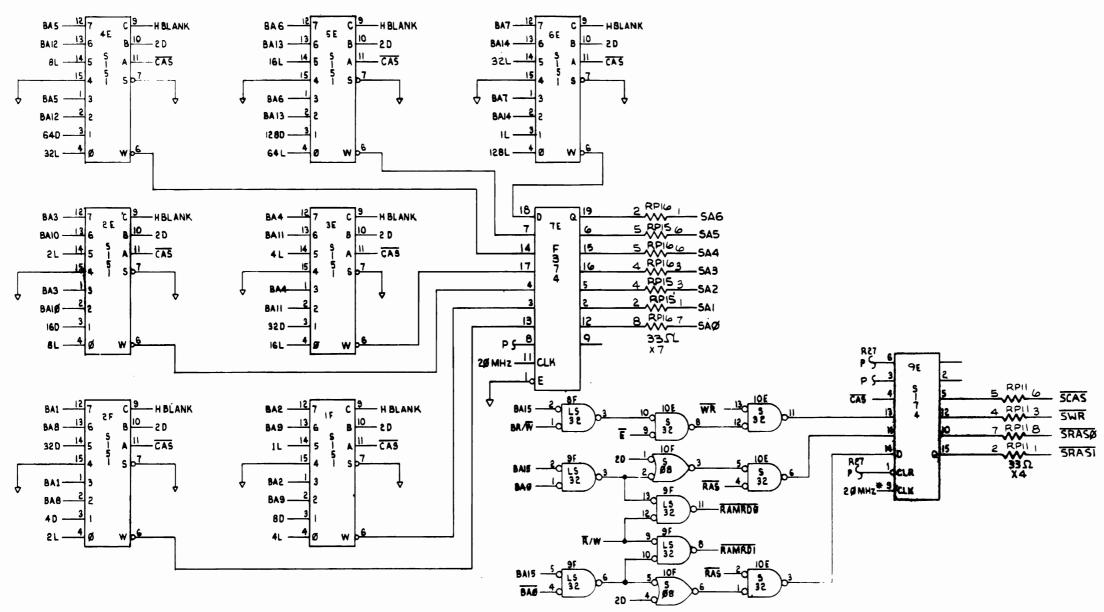
+12

+ C187

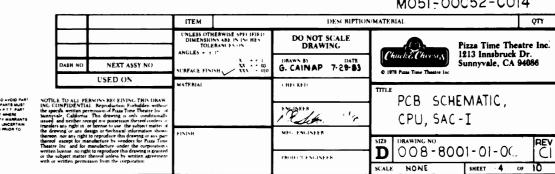
MEET 3 OF 10

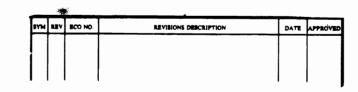
SAIL HONE

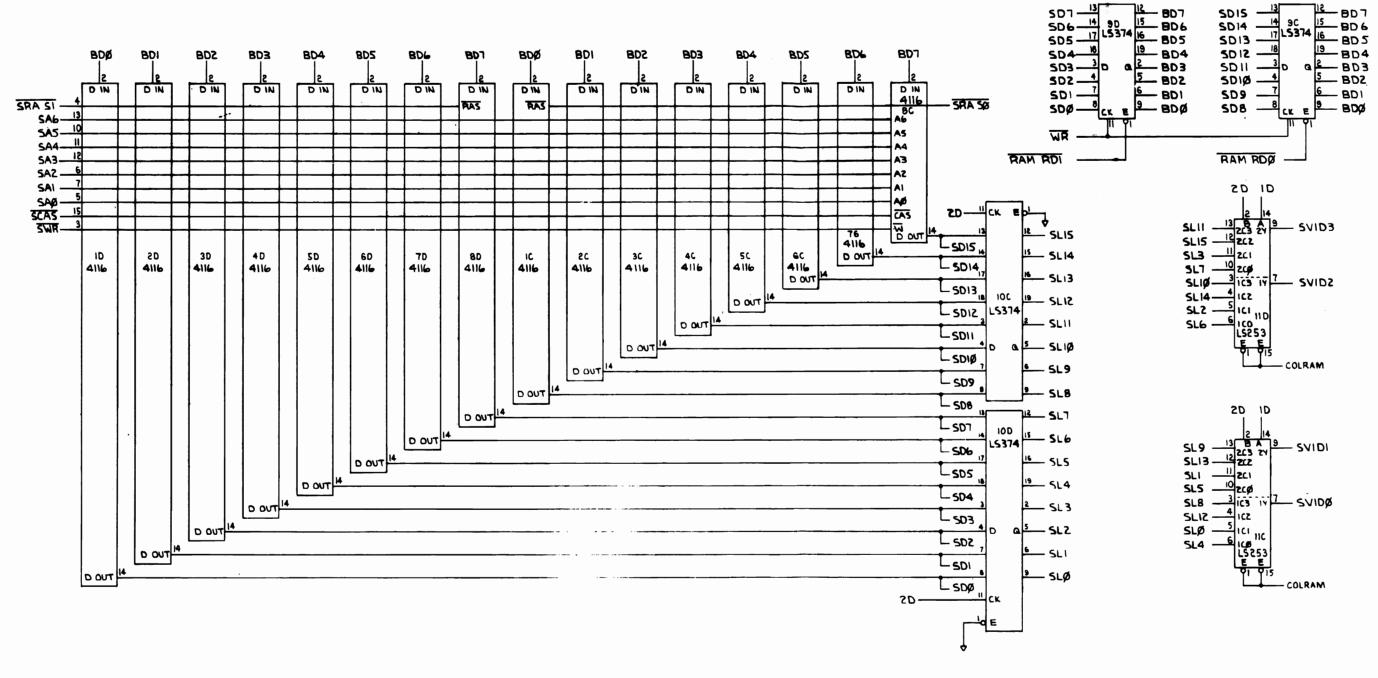


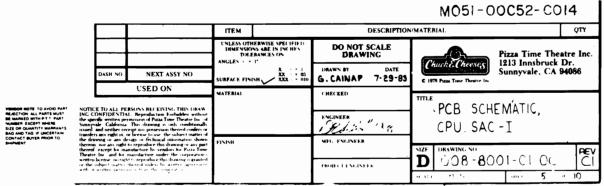


M051-00C52-C014

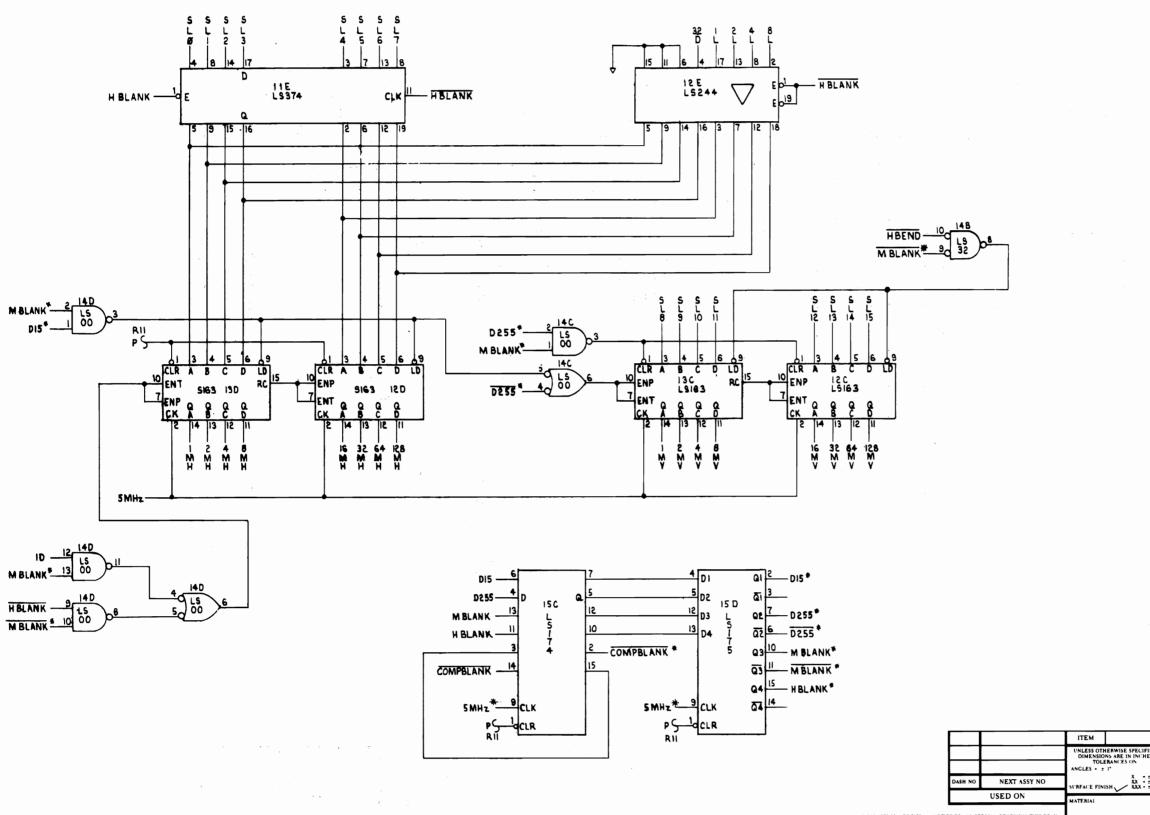








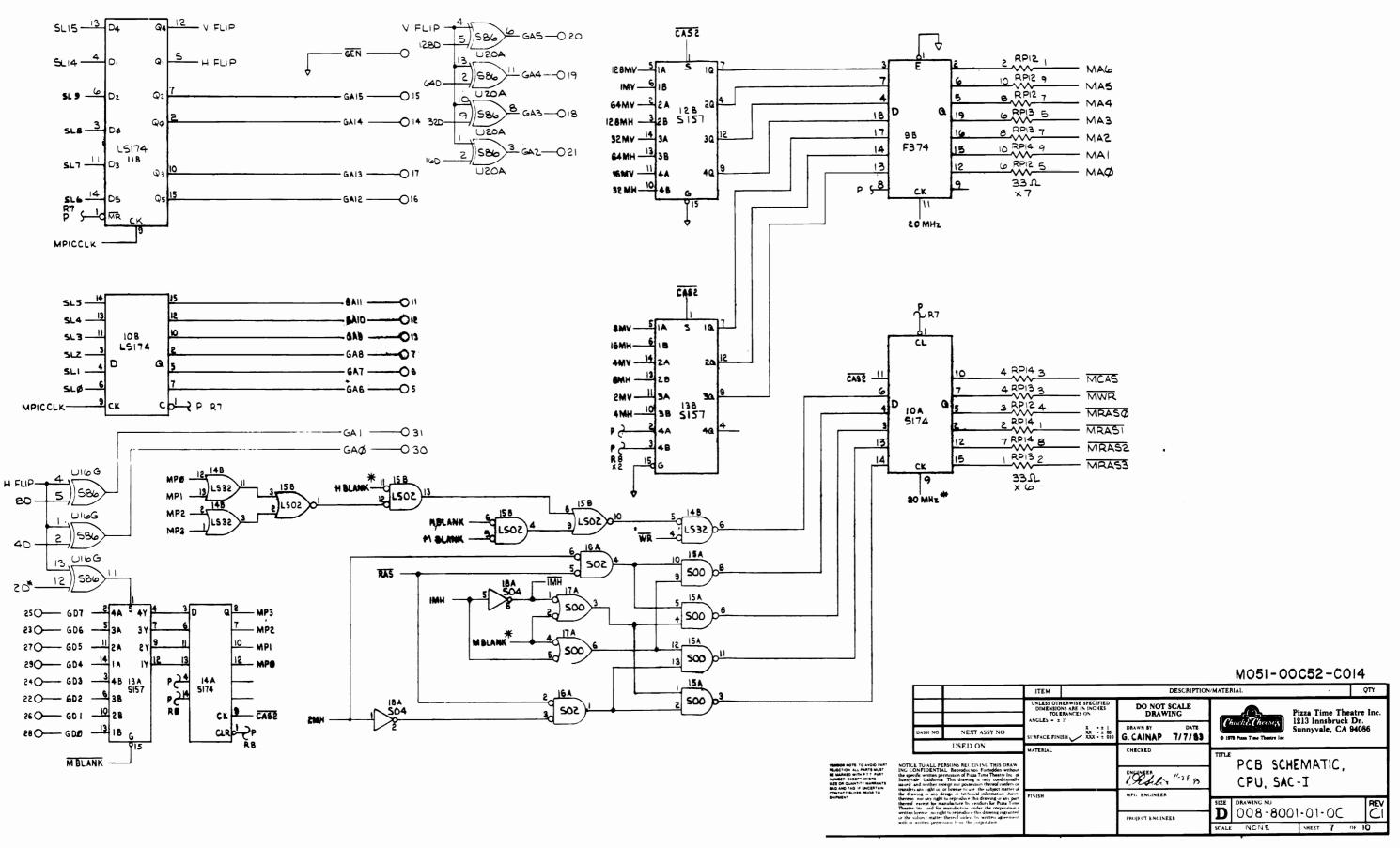


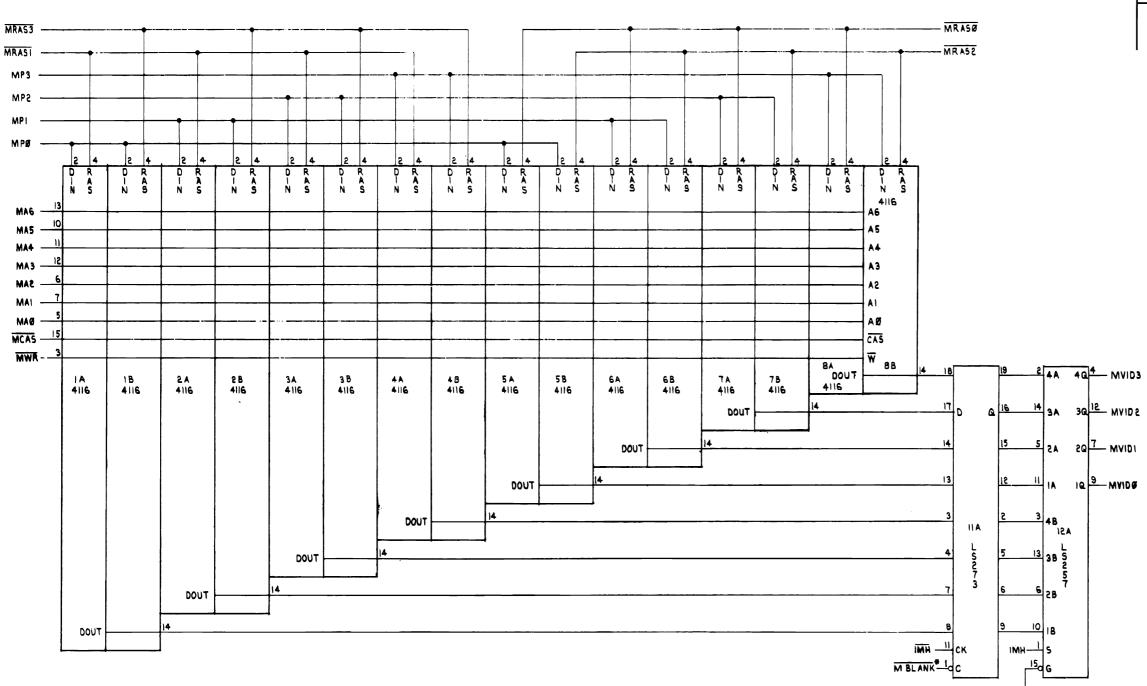


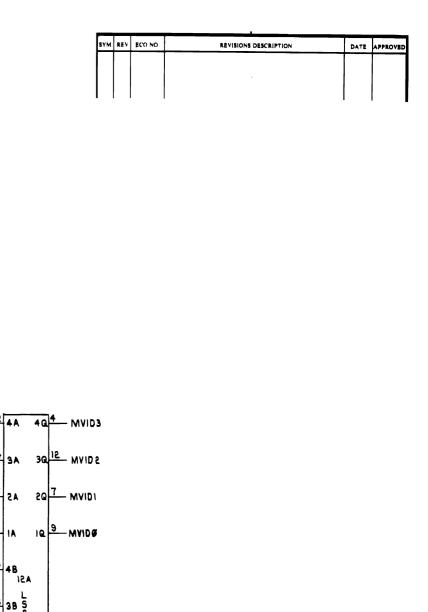
MO51-00C52-C014

			ITEM	DESCRIPTION			/MATE	RIAL		QTY
			DIMENSIO	HERWISE SPECIFIED NS ARE IN INCHES ERANCES ON 1*	DO NOT DRAV				Pizza Time The	
	DASH NO	NEXT ASSY NO	SURFACE FIN	XX = ± 1 XX = ± 03 XXX = ± 010	G. CAINAP	7-29-83		78 Pizza Time Theatre Inc	Sunnyvale, CA	
O PART NOTICE TO ALL PERSONS RECEIVING THIS DRAW INC CONFIDENTIAL Reproduction Forbidden without the specific written permission of Paza Time Theatre Inc. of Sunsata Sunsata California That drawing is only conditionally stands. And forbidden recommend to use, the subject matter of the drawing or any design or technical information shown to the drawing or any design or technical information shown		MATERIAL		ENGINEER MFG. ENGINEER	"28 i 3	PCB SCHEMATIC				
	thereon, nor any right thereof, except for m Theatre Inc. and for written beense no rig or the subject matter	to reproduce this drawing or any part anufacture by vendors for Pizza Time manufacture under the corporation is to reproduce this drawing is granted thereof unless by written agreement soom from the corporation.	FINISH		PROJECT ENGINEER		SCALE		01-01-0C	REV Cl

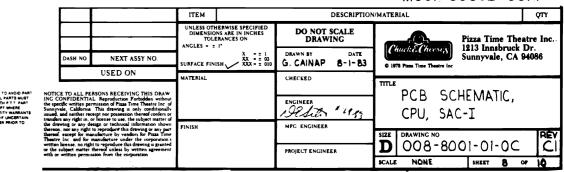




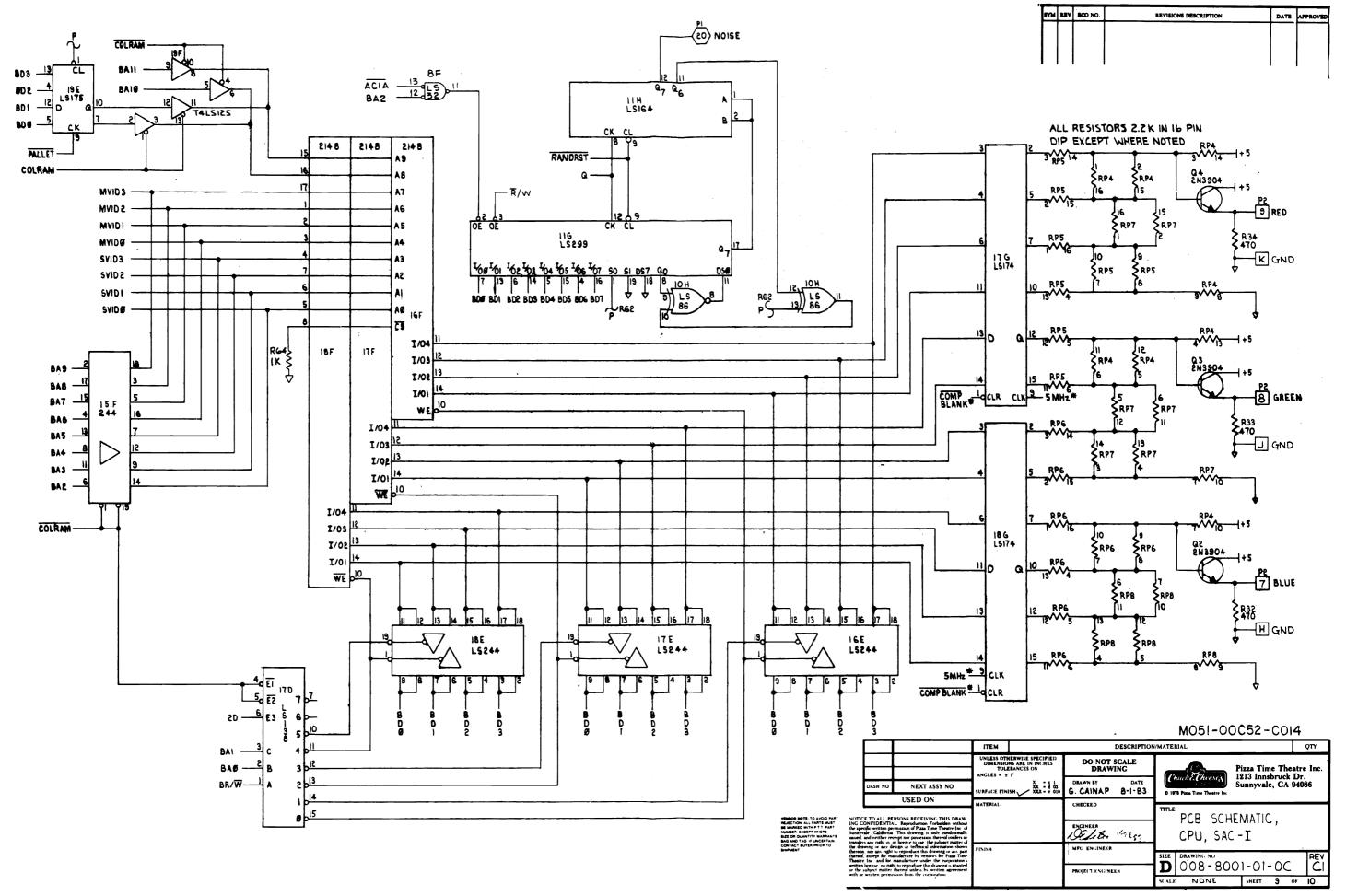


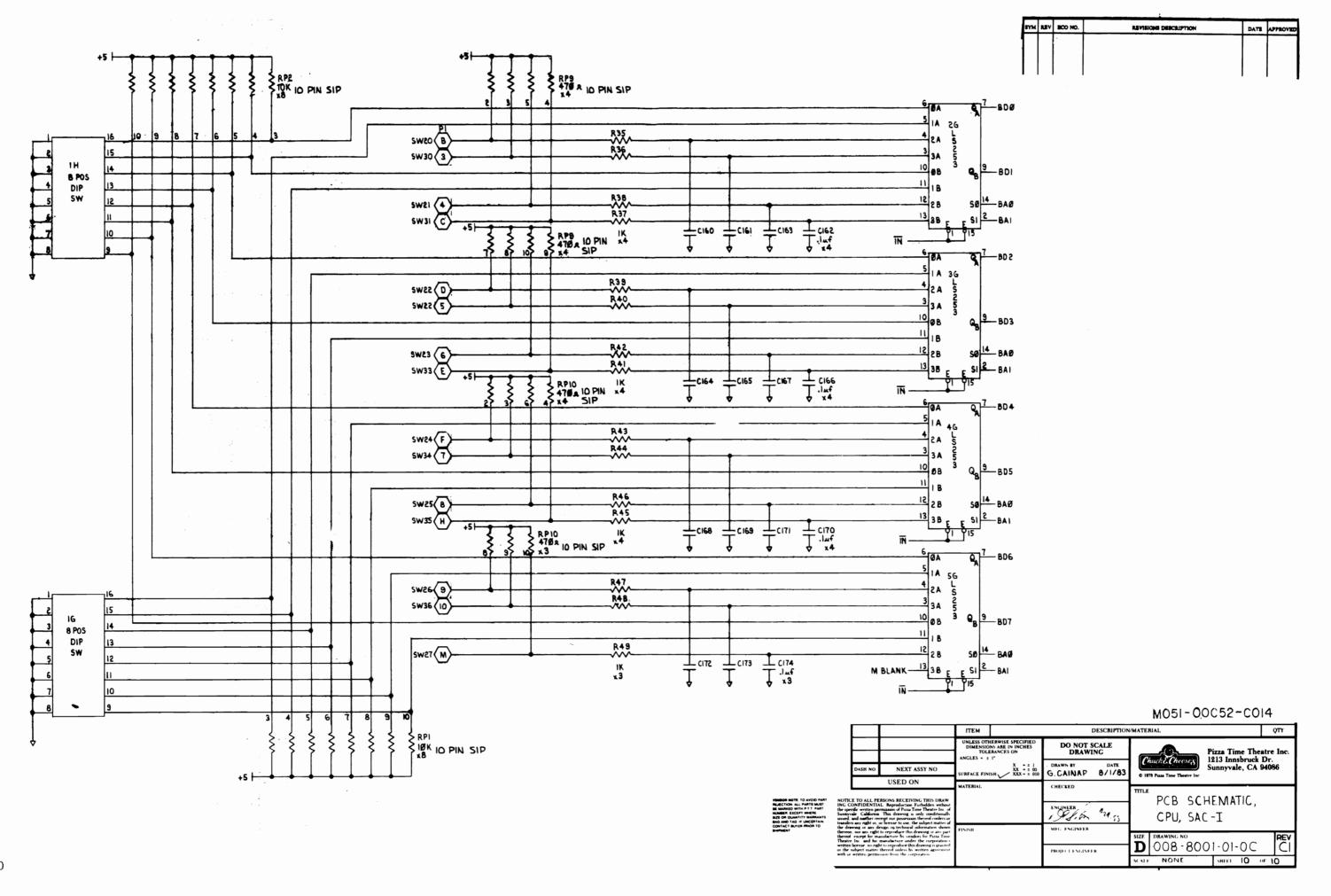


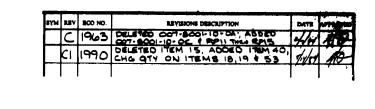


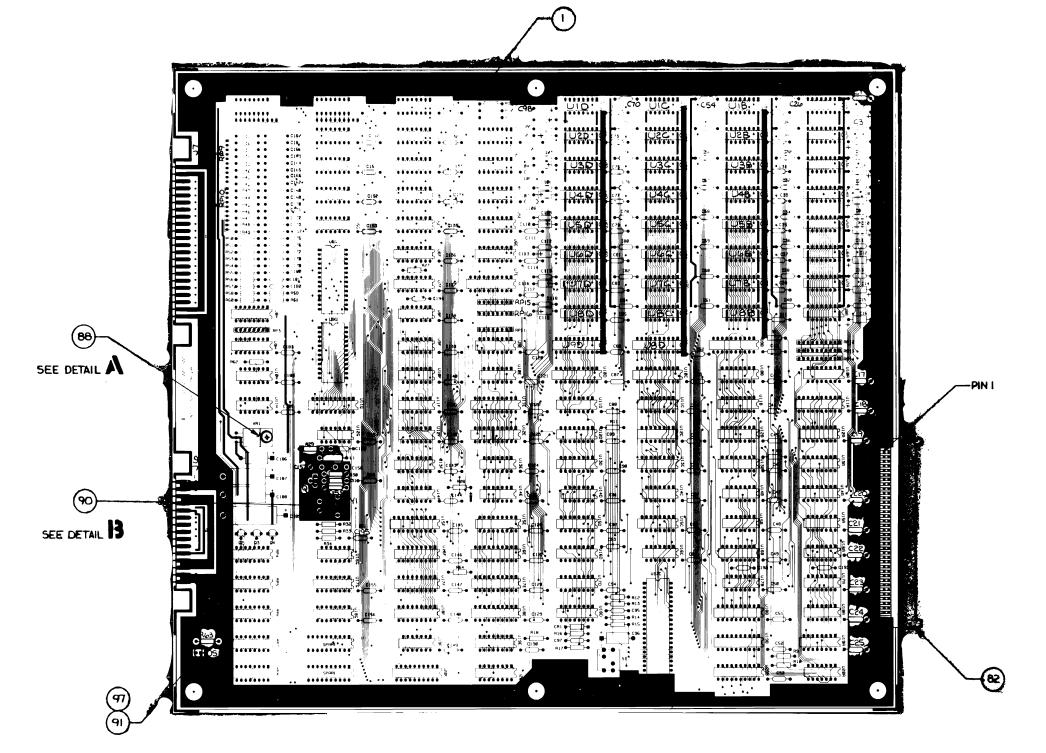


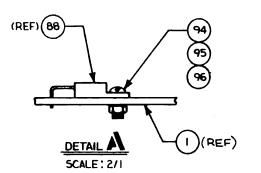
L-COLRAM

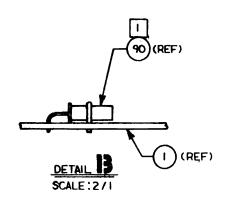












NOTES: UNLESS OTHERWISE SPECIFIED

YI (ITEM 90) TO HAVE 20 AWG WIRE WRAPPED AROUND BODY AND SOLDERED IN HOLES PROVIDED.

M051-00C52-C013 DESCRIPTION/MATERIAL ITEM DO NOT SCALE DRAWING Pizza Time Theatre Inc -IO 000-8011-10 1213 Innsbruck Dr. Sunnyvale, CA 94066 NEXT ASSY NO. PERCIVAL 1/30/0 . FORTE PCB ASSEMBLY SEE LIM CPU, SAC-I D 006-8001-10-0C SCALE // & NOTED SHEET

PCB ASSEMBLY, CPU (006-8001-10-0C) (M051-00C52-C013) PARTS LIST - SHEET 2 of 4

ITEM	QIY.	PART NO.	REFERENCE	DESCRIPTION
IIIA	QII.	PARCE NO.	REFERENCE	DESCRIPTION
1	1	007-8001-01-0C		PCB, FABRICATION, CPU, SAC-1
2				, , , , , , , , , , , , , , , , , , , ,
3	3	200-0039-01	UllF,14D,14C	IC, DIG, TTL, 74LS00, NAND GATE
4	2	200-0040-01	U14E,15B	IC, DIG, TTL, 74LS02, NOR GATE
5 6	1	200-0041-01	U1 6 C	IC, DIG, TTL, 74LS04, HEX INVERTER
6	1	200-0042-01	Ul3E	IC, DIG, TTL, 74LS20, 4-IN NAND
7	3	200-0043-01	U8F,9F,14B	IC, DIG, TTL, 74LS32, OR GATE
8	1	200-0044-01	Ul7B	IC, DIG, TTL, 74LS74, DUAL D F/F
9	1	200-0075-01	U10H	IC, DIG, TTL, 74LS86, QUAD X-OR
10	1	200-0045-01	'U16D	IC, DIG, TTL, 74LS96, 5 BIT SHIFT
11	2	200-0046-01	U13F,14F	IC, DIG, TTL, 74LS109, DUAL JK F/F
12	1	200-0047-01	Ul9F	IC, DIG, TTL, 74LS125, QUAD BUFFER
13	2	200-0048-01	U17D,U20E	IC, DIG, TTL, 74LS138, 3-8 DECODER
14				
15				
16	2	200-0052-01	U12C,13C	IC, DIG, TTL, 74LS163, 4 BIT COUNT
17	1	200-0076-01	UllH	IC, DIG, TTL, 74LS164, 8 BIT SHIFT
18	5	200-0053-01	U10B,11B,15C,17G,	IC, DIG, TTL, 74LS174, HEX D F/F
			18G	
19	3	200-0032-01	U19A,15D,19E	IC, DIG, TTL, 74LS175, QUAD D F/F
20	7	200-0055-01	U18B,20B,12E,18E,	IC, DIG, TTL, 74LS244, 8TS BUFFER
			17E,16E,15F	
21	1	200-0056-01	U19B	IC, DIG, TTL, 74LS245, 8 BUS XCVR
22	6	200-0057-01	UllD,11C,26,36,	IC, DIG, TTL, 74LS253, DATA SELECT
		· · · · · · · · · · · · · · · · · · ·	46,56	
23	1	200-0078-01	U12A	IC,DIG,TTL,74LS257,4 2-1 MUX
24	1	200-0058-01	U9H	IC,DIG,TTL,74LS259,8 BIT LATCH
25	1	200-0059-01	UllA	IC, DIG, TTL, 74LS273, OCTAL D F/F
26	1	200-0077-01	UllG	IC, DIG, TTL, 74LS299, 8 BIT SHIFT
27	5	200-0060-01	U10C,10D,9D,9C,	IC, DIG, TTL, 74LS374, OCTAL D F/F
			11E	
2 8				
29				
30	2	200-0061-01	U17A,15A	IC, DIG, TTL, 74S00, NAND GATE
31	1	200-0062-01	U16A	IC, DIG, TTL, 74S02, NOR GATE
32	2	200-0063-01	U12G,18A	IC, DIG, TTL, 74S04, HEX INVERTER
33	1	200-0064-01	UlOF	IC, DIG, TTL, 74S08, AND GATE
34	1	200-0065-01	U10E	IC, DIG, TTL, 74S32, OR GATE
35	1	200-0066-01	Ul2F	IC, DIG, TTL, 74S74, DUAL D F/F
36	7	200-0067-01	U2E-6E,1F,2F	IC,DIG,TTL,74S151,8-1 MUX
37	3	200-0068-01	U12B,13B,13A	IC,DIG,TTL,74S157,4 2-1 MUX
38	6	200-0069-01	U3F,4F,5F,6F,13D, 12D	IC,DIG,TTL,74S163,4 BIT COUNT
39	3	200-0070-01	U9E,14A,10A	IC, DIG, TTL, 74S174, HEX D F/F
40	2	200-0082-01	U20A,U16G	IC, DIG, TTL, 74S86, QUAD X-OR
41				
42	1	210-0005-01	U18D	IC, DIG, CMOS, 4049UB, HEX INVERTER
43	1	230-0007-01	U15E	IC, DIG, NOV RAM, X 2212, 256 X 4

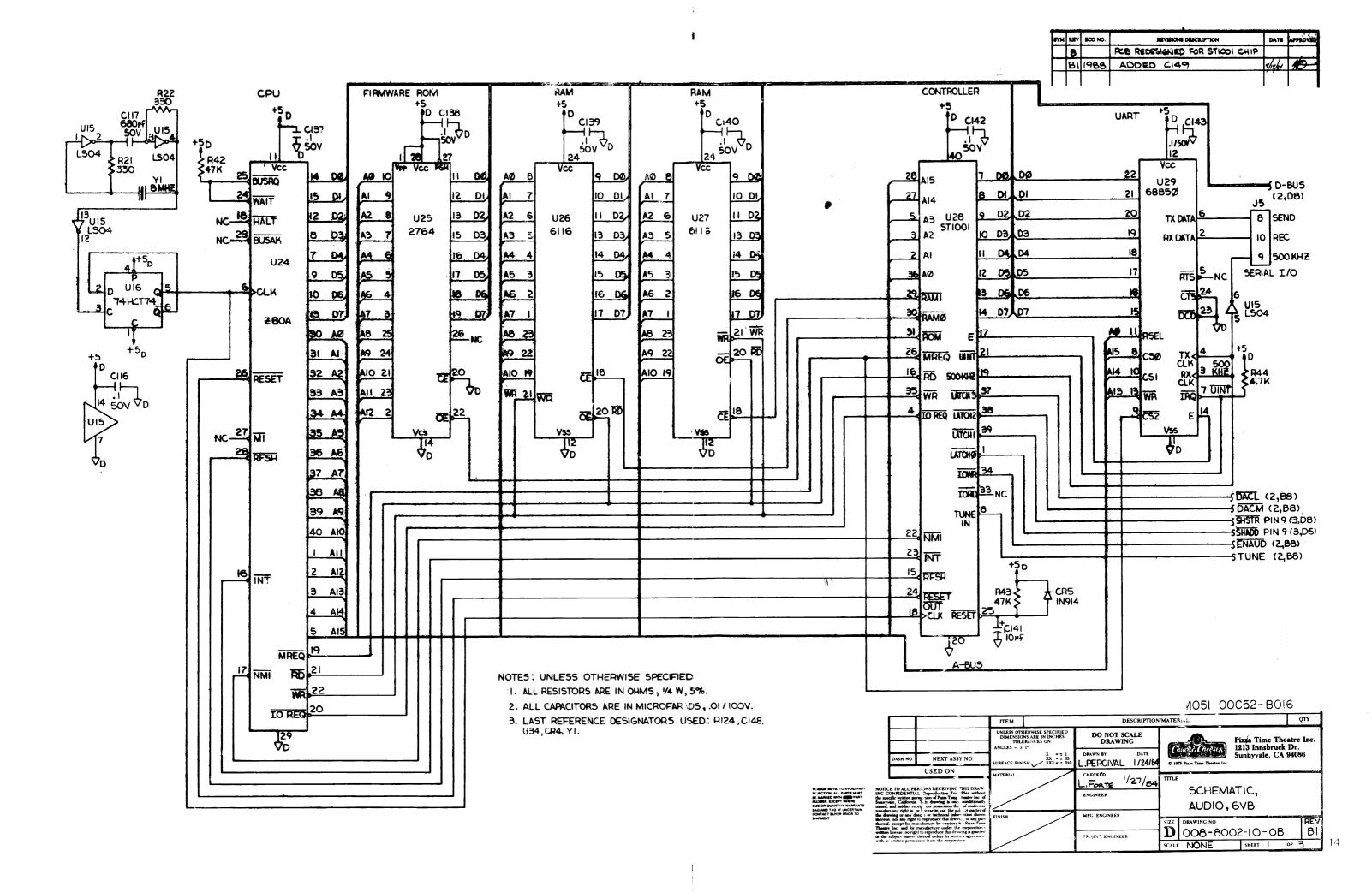
PCB ASSEMBLY, CPU (006-8001-10-0C) (M051-00C52-C013) PARTS LIST - SHEET 3 of 4

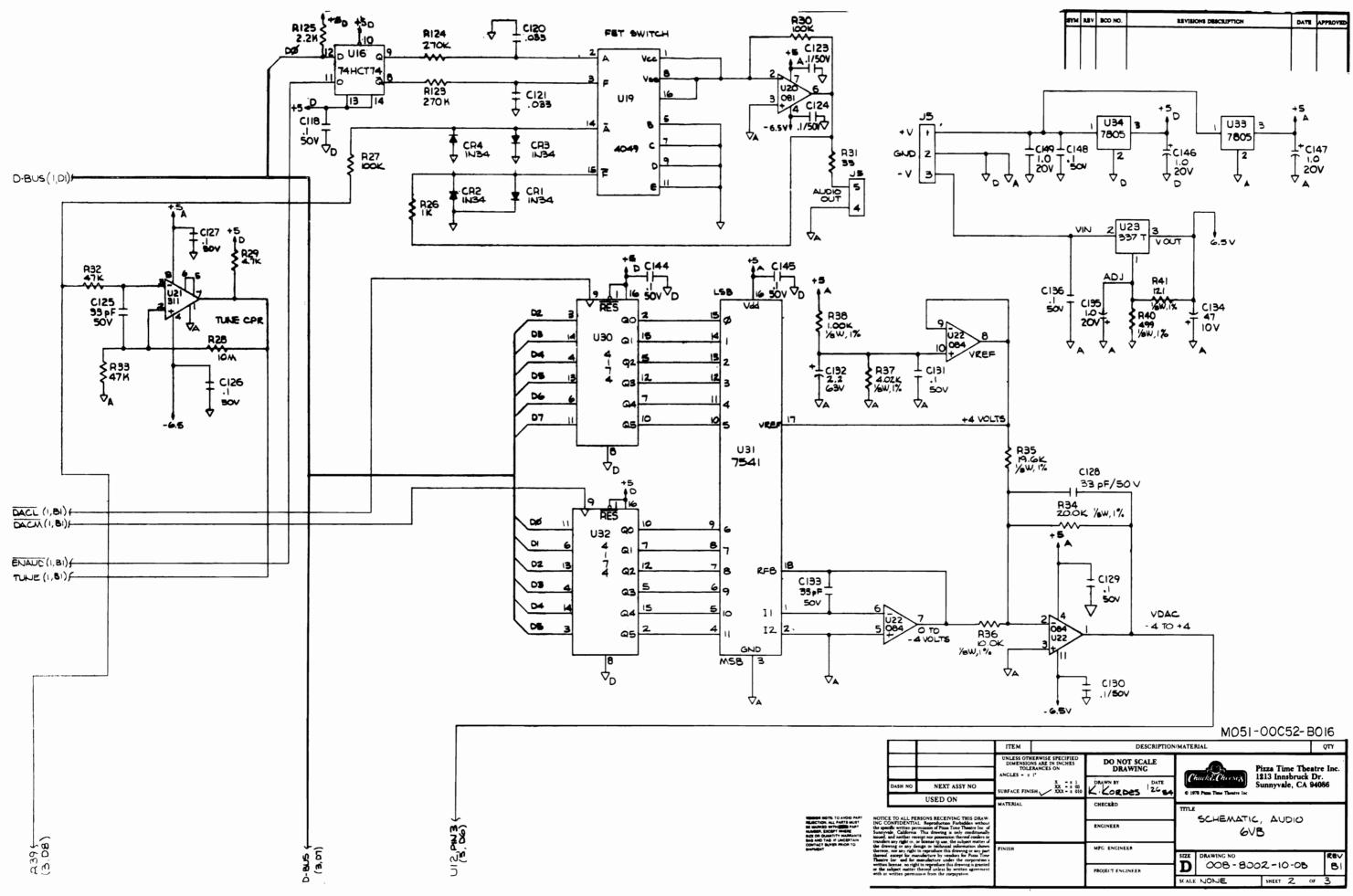
ITEM	QTY.	PART NO.	REFERENCE	DESCRIPTION
44		240-0003-01	U18F,17F,16F	IC, DIG, RAM, 2148, 1K X 4,70NS
44	3 3 2	240-0003-01		IC, DIG, RAM, 4116, 16K X 1, 150NS
4 5	32	240-0004-01	U1A-BA,1B-8B, 1C-8C,1D-8D	1C, DIG, RAM, 4110, 10K X 1,150NS
4.6	,	260-0002-01	U8H	IC, DIG, INT, ULN2003, DRIVER
46	1	015-8001-10-0B	U20F	PAL,SAC-1
4 7	1	250-0010-01	U9G	IC,DIG,MPS,68B50,ACIA,.75MHZ
4 8	1	250-0010-01	U17C	IC,DIG,MPU,68A09E
4 9	1	260-0030-01	U6G	IC,SP,,ADC 8 BIT,ADC0809
50	1	320-0030-01	C157	CAP, MIC, RAD, 12PF, 500V, 5%
51	1		C157 C158	CAP,MIC,RAD,12PF,500V,5%
52	172	320-0007-01 300-0009-01	C1,3,5,7,9,11,13,	
53	172	300-0009-01	15,17-95,97,98, 100,102,103,105, 106,108,109,111, 112,114,115,117, 118,120,121-156,	CAP, CER, AAL, 0.10F, 30V, 208
			159 - 185 , 190 - 195	
54	2	340-0015-01	C96,186	CAP, ELEC, AXL, 1.0UF, 63V, 50/-10%
5 5	2	340-0011-01	C187,C188	CAP, ELEC, AXL, 100UF, 16V, 50/-10%
56	1	340-0018-01	C189	CAP, ELEC, AXL, 470UF, 6.3V, 50/ -10%
57	8	310-0013-01	C2,6,10,14,101, 107,113,119	CAP, TAN, AXL, 2.2UF, 10V, 20%
58	8	310-0014-01	C4,8,12,16,99, 104,110,116	CAP, TAN, AXL, 4.7UF, 20V, 20%
59	4	460-0015-01	RP11,RP13,RP15, RP16	RES,PAK,SIP,8 PIN,4X,33 OHM
60	2	460-0016-01	RP12,RP14	RES, PAK, SIP, 10 PIN, 5X, 33 OHM
61	2	400 0010 01	14 12/14 1	, and , 112, , 212, , 213, , 2
62	1	400-1500-01	R63	RES,CF,1/4W,5%,150 OHM
63	1	400-2200-01	R29	RES, CF, 1/4W, 5%, 220 OHM
64	3	400-4700-01	R32-34	RES, CF, 1/4W, 5%, 470 OHM
65	37	400-1001-01	R7,8,9,11,14,15, 18-21,27,28,35-57 62,64	RES,CF,1/4W,5%,1K OHM
66	1	400-2701-01	R12	RES, CF, 1/4W, 5%, 2.7K OHM
67	6	400-4701-01	R13,31,58-61	RES, CF, 1/4W, 5%, 4.7K OHM
68		400-1002-01	R26,30	RES, CF, 1/4W, 5%, 10K OHM
69	2 2	400-1003-01	R16,17	RES, CF, 1/4W, 5%, 100K OHM
70	5	460-0011-01	RP4-8	RES, PAK, DIP, 16 PIN, 8X, 2.2K OHM
70 71	5 2	460-0012-01	RP9,10	RES, PAK, SIP, 10 PIN, 9X, 470 OHM
72	ī	460-0014-01	RP3	RES, PAK, SIP, 8 PIN, 7X, 1.0K OHM
73	2	460-0013-01	RP1,2	RES, PAK, SIP, 10 PIN, 9X, 10K OHM
74	1	400-2700-01	R10	RES,CF,1/4W,5%,270 OHM
75 76	1	510-0019-01	U9G	SOCKET, IC, 24P, LOW PROF, PC
76	1	510-0019-01	U6G	SOCKET, IC, 28P, LOW PROF, PC
77 78	1 1	510-0020-01	U17C	SOCKET, IC, 40P, LOW PROF, PC

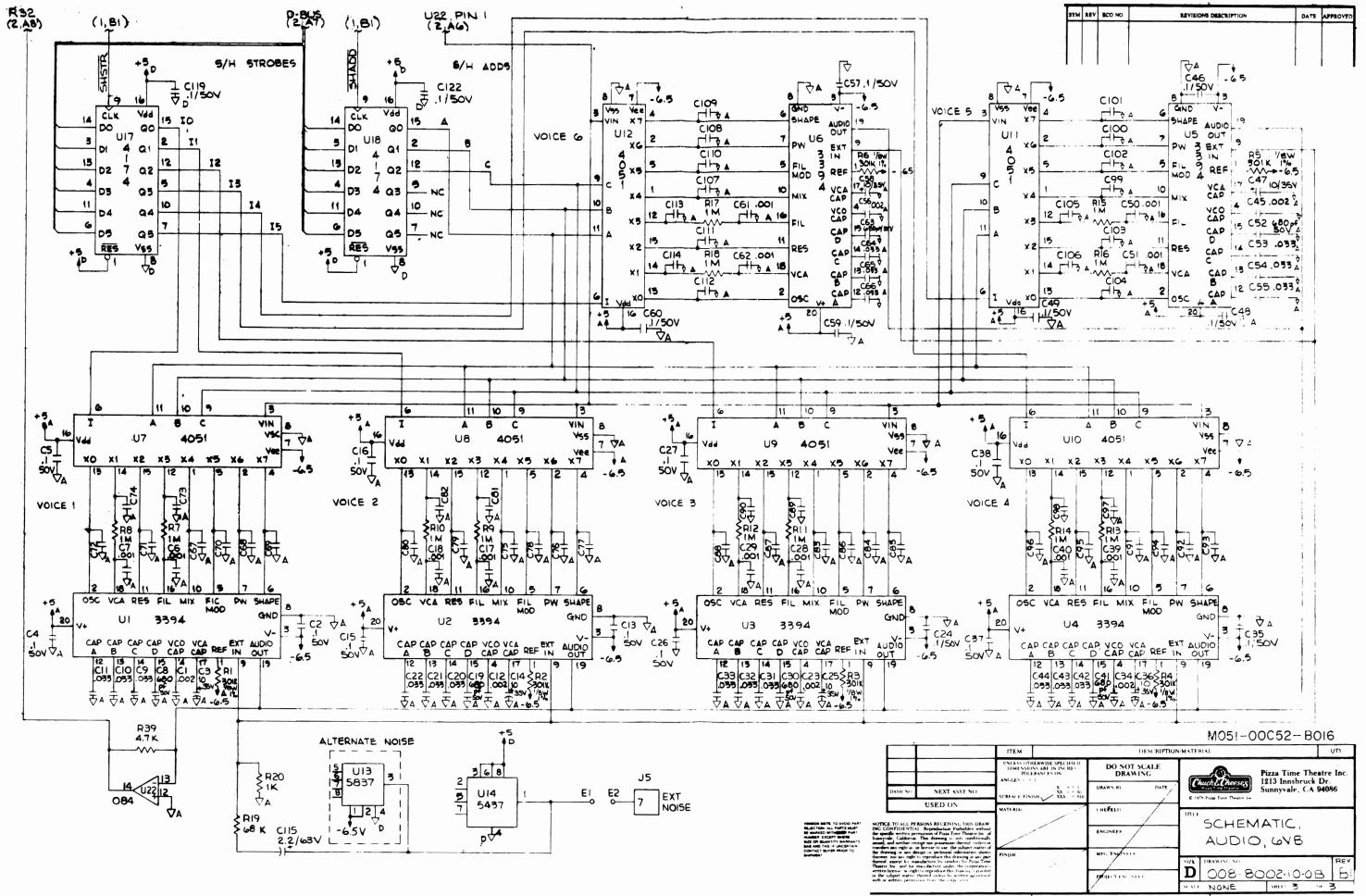
12

PCB ASSEMBLY, CPU (006-8001-10-0C) (M051-00C52-C013) PARTS LIST - SHEET 4 of 4

ITEM	QTY.	PART NO.	REFERENCE	DESCRIPTION
79				
80				
81				
82	1	550-0063-01	J22	CONN, AMP 1-102589-7
83	1	500-0016-01	Ll	INDUCTOR, FER, AXL, 100UH, 10%
84	1	100-0002-01	CR1	D10,SI,10MA,75 PIV,IN914
85	_			,
86				
87	4	120-0003-01	Q1,2,3,4	XSTR, SI, NPN, 2N3904
88	ì	260-0011-01	VR1	1C, LIN, VR, 7905, 5V NEG
89				
90	1	820-0004-01	Yl	CRYSTAL, 20.000MHZ
91	1	840-0036-01	DSl	OPT, DSP, LED, SNG, RED
92	2	570-0036-01	UlG,1H	SW, DIP, 8 PST
93	_		, ,	, , , , , , , , , , , , , , , , , , , ,
94	1	801-0440-06-01		SCREW PH PH 4-40 X 3/8"
95	1	812-0440-00-01		NUT, HEX, 4-40
96	ī	822-0004-00-01		WASHER, SPLIT LOCK #4
97	ī	800-00237-01	DSl	SPACER, LED
98	_			- · · · · · · · · · · · · · · · · · · ·
99				
100				
101				
102	2	200-0079-01	U7F,U16B	IC, DIG, TTL, 74F175, QUAD D F/F
103	2	200-0080-01	U7E,U9B	IC, DIG, TTL, 74F374, OCTAL D F/F
104			•	, , , , , , , , , , , , , , , , , , , ,
105				

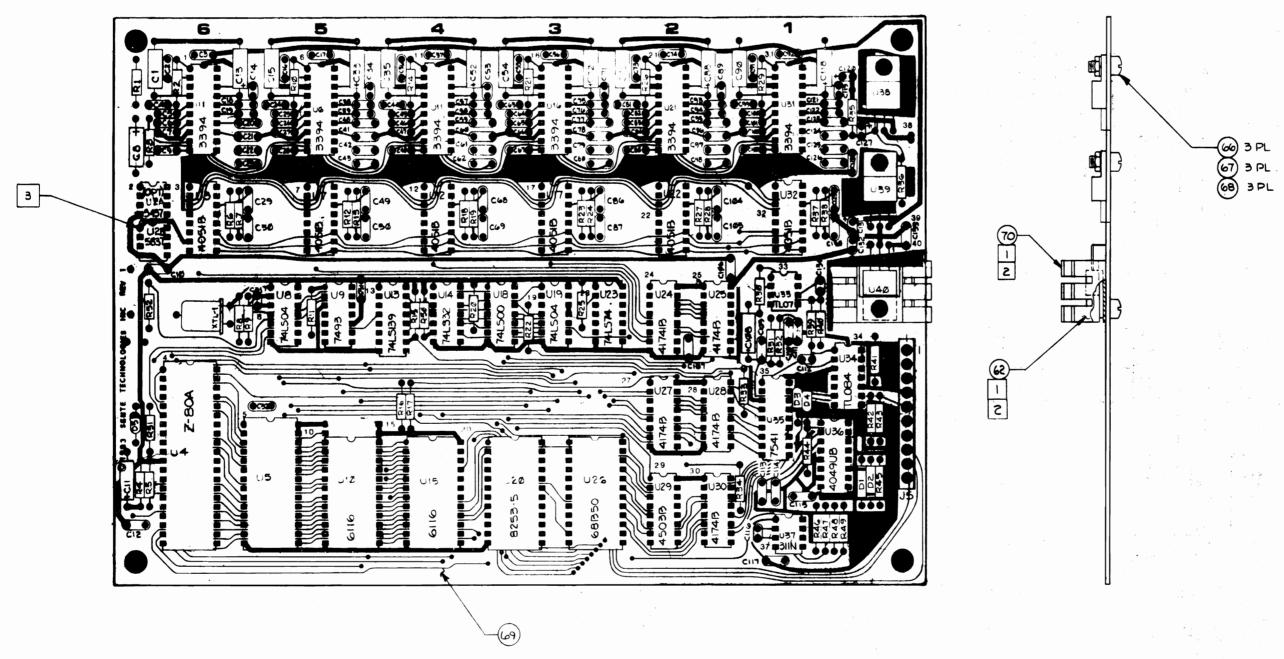






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SYM	REV	.ECO NO.	REVISIONS DESCRIPTION	DATE	APPROVED
	1		PROTOTYPE	40.63	110
	A	1892	PRODUCTION RELEASE	1/12/13	1
-	Δ	1900	ADDED NOTE 3, REVERSED POLARITY OF C8.	(21.,,	ن تمف
	В	1924	ADDED 2 HEATSINKS, ITEMS 62 4 70	1-25.84	wes



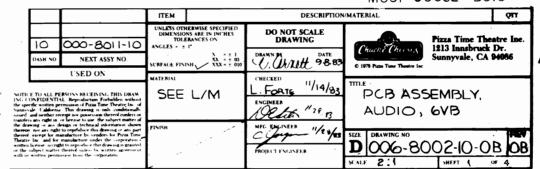
NOTES:

FASTEN U40 (ITEM 53) TO HEATSINK (ITEM 62), HEATSINK (ITEM 70), AND FCB (ITEM 69), WITH HARDWARE (ITEM 66,67 & 68) BEFORE SOLDERING TO PCB.

2 APPLY HEATSINK COMPOUND TO HEATSINK (ITEM 62) & HEATSINK (ITEM 70) PRIOR TO MOUNTING.

3 SHORT PIN I TO PIN 2 OF UZB, AND MOUNT CO AS SHOWN TO USE AMI 2688 (5837 EQUIV)

MO51-00C52-B015



PCB ASSEMBLY, AUDIO 6VB (006-8002-10-0B) (M051-00C52-B015) PARTS LIST - SHEET 2 of 4

ITEM	OTY.	PART NO.	REFERENCE	DESCRIPTION
1	2	400-1001-01	R1,R44	RES,CF,1/4W,5%,1K OHM
2	1	400-6802-01	R3	RES,CF,1/4W,5%,68K OHM
3	5	400-1003-01	R4,5,42,45,51	RES,CF,1/4W,5%,100K OHM
4	12	400-1004-01	R6,7,12,13	RES,CF,1/4W,5%,1.0M OHM
5	3	400-3300-01	R8,9,11	RES,CF,1/4W,5%,330 OHM
6	6	400-2001-01	R15,16,17,20,22,50	RES,CF,1/4W,5%,2.0K OHM
7	3	400-4701-01	R25,41,46	RES,CF,1/4W,5%,4.7K OHM
8	2	400-4702-01	R48,49	RES,CF,1/4W,5%,47K OHM
9	1	400-3307-01	R43	RES,CF,1/4W,5%,33 OHM
10	1	401-1005-01	R47	RES,CC,1/4W,5%,10M OHM
11	6	450-3013-01	R2,10,14,21,26,29	RES,MF,1/8W,1%,301K OHM
12	1	450-1962-01	R40	RES,MF,1/8W,1%,19.6K OHM
13				
14	1	450-2002-01	R30	RES,MF,1/8W,1%,20.0K OHM
15	1	450-4021-01	R31	RES,MF,1/8W,1%,4.02K OHM
16	1	450-1001-01	R32	RES,MF,1/8W,1%,1.00K OHM
17	1	450-1210-01	R35	RES,MF,1/8W,1%,121 OHM
18	1	450-4990-01	R36	RES,MF,1/8W,1%,499 OHM
19	1	450-1002-01	R39	RES,MF,1/8W,1%,10.0K OHM
20				
21	12	330-0005-01	C14,18,34,38,53,	CAP, PES, RAD, 0.001UF,
			57,71,75,89,93,119,	100V,10%
			121	
22	6	330-0009-01	Cl,15,35	CAP, PST, AXL, 0.002UF,
			54,72,90	100V,5%
23	48	330-0006-01	C2,5,6,7,9,16,23,25,	CAP, PES, RAD, 0.01UF, 100V,
			26,27,28,29,30,36,43,	10%
			45,46,47,48,49,50,55,	
			62,64,65,66,67,68,69,	
			73,80,82,83,84,85,86,	
			87,91,98,100,101,102,	
			103,104,105,126,129,	
			130	
24	20	330-0007-01	C20,21,22,40,41,42,	CAP, PES, RAD, 0.033UF, 100V
			59,60,61,77,78,79,95,	10%
			96,97,113,114,123,	
			124,125	
25	3	300-0011-01	C112,116,134	CAP, CER, RAD, 33PF, 50V, 10%
26	7	300-0012 - 01	C19,31,39,58,76,94,	CAP, CER, RAD, 680PF, 50V, 5%
			122	
27	25	300-0002-01	C3,4,10,12,17,24,32,	CAP, CER, RAD, 0.1UF, 50V, 20%
			37,44,51,56,63,74,81,	•
			92,99,106,107,109,	
			110,111,115,117,128,	
			133	
28	3	310-0012-01	C127,131,132	CAP, TAN, RAD, 1.0UF, 25V, 20%
29	3	340-0016-01	C8,11,108	CAP, ELC, AXL, 2.2UF, 63V, 50/
				10%

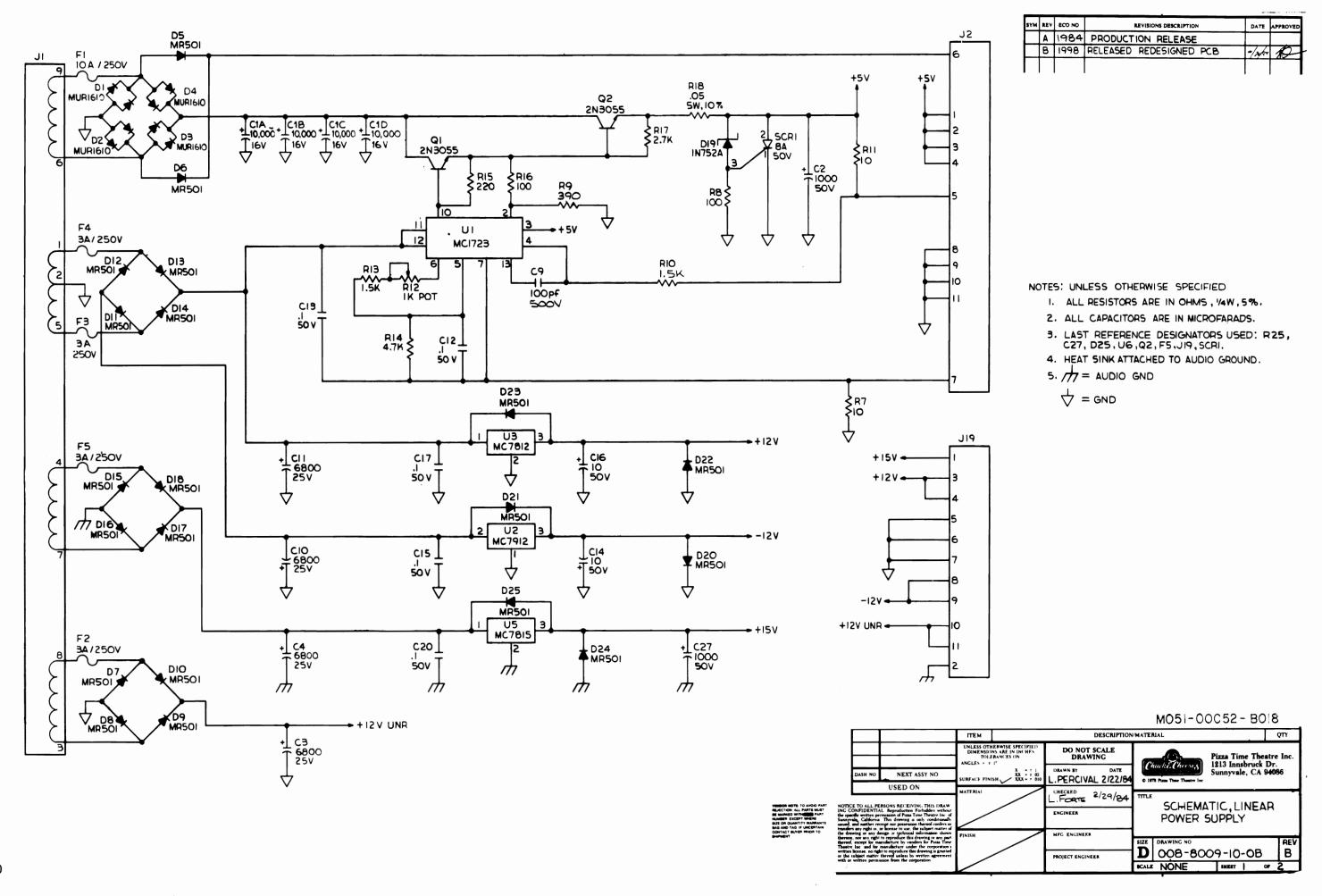
PCB ASSEMBLY, AUDIO 6VB (006-8002-10-0B) (M051-00C52-B015) PARTS LIST - SHEET 3 of 4

BUFFER 40	ITEM	QIY.	PART NO.	REFERENCE	DESCRIPTION
108	30		340-0017-01	C13.33.52.70.88.118	CAP.ELC.AXI10UF.35V.50/
31 6 260-0033-01 U1,6,11,16,21,31 IC,SP,SOUND,SYNTH,CFM, 33 94 1 210-0006-01 U3,7,12,17,22,32 IC,DIG,CMOS,4174B,HEX D F/F 33 6 210-0006-01 U3,7,12,17,22,32 IC,DIG,CMOS,4051B,8 CHAN MUX 34 1 210-0005-01 U36 IC,DIG,CMOS,4049UB,HEX INVERT 35 1 260-0029-01 U34 IC,LIN,OPAMP,TL084,OUAD, JEFT 36 1 260-0031-01 U35 IC,SP,DAC 12 BIT, 7541 37 1 260-0037-01 U37 IC,LIN,COMP,LM31IN 38 1 260-0037-01 U33 IC,LIN,OPAMP,TL071,JFET, INPUT 39 1 210-0008-01 U29 IC,DIG,CMOS,4503B,HEX TS BUFFER 40 1 260-0040-01 U2 IC,SP,NOISE SOURCE MM583' 41 1 200-0039-01 U18 IC,DIG,TTL,74LS00,NAND GATE 42 2 200-0041-01 U8,19 IC,DIG,TTL,74LS04,HEX INVERTER 43 1 200-0043-01 U14 IC,DIG,TTL,74LS32,OR GAT 44 1 200-0044-01 U23 IC,DIG,TTL,74LS74,DUAL D F/F 45 1 200-0044-01 U9 IC,DIG,TTL,74LS74,DUAL D F/F 46 1 200-0049-01 U13 IC,DIG,TTL,74LS139,2-4 DECODER 47 1 250-0007-01 U4 IC,DIG,TTL,74LS139,2-4 DECODER 48 49 2 240-0005-01 U10,15 IC,DIG,TTL,74LS139,2-4 DECODER 50 1 250-0008-01 U20 IC,DIG,MPS,68550,ACIA JSMH2 50 1 250-0008-01 U20 IC,DIG,MPS,68550,ACIA JSMH2 51 1 260-0027-01 U38 IC,LIN,VR,780SSCT,5V POS SOUNS SOUNS ID, IN,VR,780SSCT,5V POS SOUNS ID, IN,VR,780SSCT,5V POS SOUNS ID, IN,VR,780SSCT,5V POS SOUNS ID, IN,VR,780SSCT,5V POS SOUNCET,IC,24P,LOW PRO SOCKET,IC,24P,LOW PRO SOCKET,IC,	30	O	340 0017 01	013/33/32/70/00/110	
32 5 210-0007-01 U24,25,27,28,30 IC,DIG,CMOS,4174B,HEX D F/F 33 6 210-0006-01 U3,7,12,17,22,32 IC,DIG,CMOS,4051B,8 CHAN MUX 34 1 210-0005-01 U36 IC,DIG,CMOS,4049UB,HEX INVERT 35 1 260-0029-01 U34 IC,LIN,OPAMP,TL084,OUAD, JEFT 36 1 260-0031-01 U35 IC,SP,DAC 12 BIT, 7541 37 1 260-0007-01 U37 IC,LIN,COMP,LM311N 38 1 260-0037-01 U33 IC,LIN,OPAMP,TL071,JFET, INPUT 39 1 210-0008-01 U29 IC,DIG,CMOS,4503B,HEX TS 40 1 260-0040-01 U2 IC,SP,NOISE SOURCE MM583 41 1 200-0039-01 U18 IC,DIG,TTL,74LS00,NAND 42 2 200-0041-01 U8,19 IC,DIG,TTL,74LS32,OR GAT 43 1 200-0044-01 U23 IC,DIG,TTL,74LS74,DUAL 45 1 200-0044-01 U33 IC,DIG,TTL,74LS74,DUAL 45 1 200-0044-01 U14 IC,DIG,TTL,74LS139,2-4 46 1 200-0049-01 U13 IC,DIG,TTL,74LS139,2-4 47 1 250-0007-01 U4 IC,DIG,MPS,8253-5,TIMER 49 2 240-0005-01 U10,15 IC,DIG,MPS,8253-5,TIMER 50 1 250-0010-01 U26 IC,DIG,MPS,86B50,ACIA 75MH2 IC,LIN,VR,7805,SV POS 55 4 100-0006-01 D1,2,3,4 D10,GR,50MA,75PIV,IN34 56 1 550-0008-01 U39 IC,LIN,VR,7805,SV POS 57 4 510-0019-01 U10,15 SOCKET,IC,24P,LOW PRO 57 4 510-0019-01 U50 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U4 SOCKET,IC,24P,LOW PRO 50 1 510-0021-01 U4 SOCKET,IC,40P,LOW PRO 50 1	31	6	260-0033-01	U1,6,11,16,21,31	IC, SP, SOUND, SYNTH, CEM,
33 6 210-0006-01 U3,7,12,17,22,32 IC,DIG,CMOS,4051B,8 CHAN MUX	32	5	210-0007-01	U24,25,27,28,30	IC, DIG, CMOS, 4174B, HEX D
1	33	6	210-0006-01	U3,7,12,17,22,32	IC, DIG, CMOS, 4051B, 8 CHAN
35	34	1	210-0005-01	U36	IC, DIG, CMOS, 4049UB, HEX
36	35	1,	260-0029-01	U34	IC, LIN, OPAMP, TL084, QUAD,
1	36	1	260-0031-01	U35	
1					
1					IC, LIN, OPAMP, TL071, JFET,
1	39	1	210-0008-01	U29	IC, DIG, CMOS, 4503B, HEX TS
1 200-0039-01 U18 IC,DIG,TTL,74LS00,NAND GATE 2 2 200-0041-01 U8,19 IC,DIG,TTL,74LS04,HEX 3 1 200-0043-01 U14 IC,DIG,TTL,74LS32,OR GATE 44 1 200-0044-01 U23 IC,DIG,TTL,74LS74,DUAL 5 1 200-0074-01 U9 IC,DIG,TTL,74LS74,DUAL 6 1 200-0049-01 U13 IC,DIG,TTL,74LS139,2-4 7 1 250-0007-01 U4 IC,DIG,MPU,Z-80A 48 49 2 240-0005-01 U10,15 IC,DIG,RAM,6116,2KX8, 200NS 50 1 250-0008-01 U20 IC,DIG,MPS,8253-5,TIMER 51 1 250-0010-01 U26 IC,DIG,MPS,68B50,ACIA 75MHZ 52 1 260-0027-01 U38 IC,LIN,VR,337T,VARIABLE 53 1 260-0028-01 U40 IC,LIN,VR,78M05CT,5V POS 54 100-0006-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 U1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 U5 SOCKET,IC,24P,LOW PRO 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0021-01 U4 SOCKET,IC,24P,LOW PRO 59 1 510-0021-01 U4 SOCKET,IC,24P,LOW PRO 50 SOCKET,IC,24P,LOW PR	40	1	260-0040-01	U2	IC, SP, NOISE SOURCE MM5837
42 2 200-0041-01 U8,19 IC,DIG,TTL,74LS04,HEX INVERTER 43 1 200-0043-01 U14 IC,DIG,TTL,74LS32,OR GAT. 1C,DIG,TTL,74LS32,OR GAT. 1C,DIG,TTL,74LS74,DUAL DF/F 45 1 200-0044-01 U9 IC,DIG,TTL,74LS13,4 BIT COUNT 46 1 200-0049-01 U13 IC,DIG,TTL,74LS139,2-4 DECODER 47 1 250-0007-01 U4 IC,DIG,MPU,2-80A 48 49 2 240-0005-01 U10,15 IC,DIG,MPU,2-80A 50 1 250-0008-01 U20 IC,DIG,MPS,8253-5,TIMER 200NS 51 1 250-0010-01 U26 IC,DIG,MPS,68B50,ACIA .75MHZ 52 1 260-0027-01 U38 IC,LIN,VR,337T,VARIABLE NEG. 53 1 260-0028-01 U40 IC,LIN,VR,7805CT,5V POS MEG. 54 1 260-0008-01 U39 IC,LIN,VR,7805CT,5V POS DIO,GR,50MA,75PIV,IN34 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO SOCKET,IC,40P,LOW PRO SOCKET SOCKE					IC, DIG, TTL, 74LS00, NAND
1 200-0044-01 U23 IC,DIG,TTL,74LS74,DUAL D F/F 45	42	2	200-0041-01	U8,19	
1	43	1	200-0043-01	U14	IC, DIG, TTL, 74LS32, OR GATE
COUNT 46 1 200-0049-01 U13 IC,DIG,TTL,74LS139,2-4 DECODER 47 1 250-0007-01 U4 IC,DIG,MPU,Z-80A 48 49 2 240-0005-01 U10,15 IC,DIG,RAM,6116,2KX8, 200NS 50 1 250-0008-01 U20 IC,DIG,MPS,8253-5,TIMER 51 1 250-0010-01 U26 IC,DIG,MPS,68B50,ACIA .75MHZ 52 1 260-0027-01 U38 IC,LIN,VR,337T,VARIABLE NEG. 53 1 260-0028-01 U40 IC,LIN,VR,78M05CT,5V POS 54 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,28P,LOW PRO 59 1 510-0021-01 U4				U23	
DECODER 47 1 250-0007-01 U4 IC,DIG,MPU,Z-80A 48 49 2 240-0005-01 U10,15 IC,DIG,RAM,6116,2KX8, 200NS 50 1 250-0008-01 U20 IC,DIG,MPS,8253-5,TIMER 51 1 250-0010-01 U26 IC,DIG,MPS,68B50,ACIA .75MHZ 52 1 260-0027-01 U38 IC,LIN,VR,337T,VARIABLE NEG. 53 1 260-0028-01 U40 IC,LIN,VR,78M05CT,5V POS 54 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,24P,LOW PRO 59 1 510-0021-01 U4	45	1	200-0074-01	U9	
48 49 2 240-0005-01 U10,15 IC,DIG,RAM,6116,2KX8, 200NS 50 1 250-0008-01 U20 IC,DIG,MPS,8253-5,TIMER 51 1 250-0010-01 U26 IC,DIG,MPS,68B50,ACIA .75MHZ 52 1 260-0027-01 U38 IC,LIN,VR,337T,VARIABLE NEG. 53 1 260-0028-01 U40 IC,LIN,VR,78M05CT,5V POS 54 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0021-01 U4 SOCKET,IC,24P,LOW PRO 59 1 510-0021-01 U4	46	1	200-0049-01	U13	
49 2 240-0005-01 U10,15 IC,DIG,RAM,6116,2KX8, 200NS 50 1 250-0008-01 U20 IC,DIG,MPS,8253-5,TIMER 51 1 250-0010-01 U26 IC,DIG,MPS,68B50,ACIA .75MHZ 52 1 260-0027-01 U38 IC,LIN,VR,337T,VARIABLE NEG. 53 1 260-0028-01 U40 IC,LIN,VR,78M05CT,5V POS 54 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,28P,LOW PRO 59 1 510-0021-01 U4		1	250-0007-01	U 4	IC, DIG, MPU, Z-80A
51 1 250-0010-01 U26 IC,DIG,MPS,68B50,ACIA .75MHZ .75MHZ 52 1 260-0027-01 U38 IC,LIN,VR,337T,VARIABLE NEG. 53 1 260-0028-01 U40 IC,LIN,VR,78M05CT,5V POS 54 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,24P,LOW PRO 59 1 510-0021-01 U4 SOCKET,IC,40P,LOW PRO		2	240-0005-01	U10,15	
51 1 250-0010-01 U26 IC,DIG,MPS,68B50,ACIA .75MHZ 52 1 260-0027-01 U38 IC,LIN,VR,337T,VARIABLE NEG. 53 1 260-0028-01 U40 IC,LIN,VR,78M05CT,5V POS 54 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,28P,LOW PRO 59 1 510-0021-01 U4 SOCKET,IC,40P,LOW PRO	50	1	250-0008-01	U20	IC, DIG, MPS, 8253-5, TIMER
NEG. 1 260-0028-01 U40 IC,LIN,VR,78M05CT,5V POS 1 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 1 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 1 550-0062-01 J5 CONN 10 PIN LOCKING 1 550-0062-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 1 510-0020-01 U5 SOCKET,IC,28P,LOW PRO 1 510-0021-01 U4 SOCKET,IC,40P,LOW PRO					IC, DIG, MPS, 68B50, ACIA
54 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,28P,LOW PRO 59 1 510-0021-01 U4 SOCKET,IC,40P,LOW PRO	52	1	260-0027-01	U38	
54 1 260-0008-01 U39 IC,LIN,VR,7805,5V POS 55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,28P,LOW PRO 59 1 510-0021-01 U4 SOCKET,IC,40P,LOW PRO	53	1	260-0028-01	U40	IC, LIN, VR, 78M05CT, 5V POS
55 4 100-0006-01 D1,2,3,4 DIO,GR,50MA,75PIV,IN34 56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,28P,LOW PRO 59 1 510-0021-01 U4 SOCKET,IC,40P,LOW PRO					
56 1 550-0062-01 J5 CONN 10 PIN LOCKING 09-74-1101 57 4 510-0019-01 U10,15,20,26 SOCKET,IC,24P,LOW PRO 58 1 510-0020-01 U5 SOCKET,IC,28P,LOW PRO 59 1 510-0021-01 U4 SOCKET,IC,40P,LOW PRO					
58 1 510-0020-01 U5 SOCKET, IC, 28P, LOW PRO 59 1 510-0021-01 U4 SOCKET, IC, 40P, LOW PRO					CONN 10 PIN LOCKING
58 1 510-0020-01 U5 SOCKET, IC, 28P, LOW PRO 59 1 510-0021-01 U4 SOCKET, IC, 40P, LOW PRO	57	4	510-0019-01	U10,15,20,26	
59 1 510-0021-01 U4 SOCKET, IC, 40P, LOW PRO					
					Dlo,S1,10MA,75 PIV,IN914

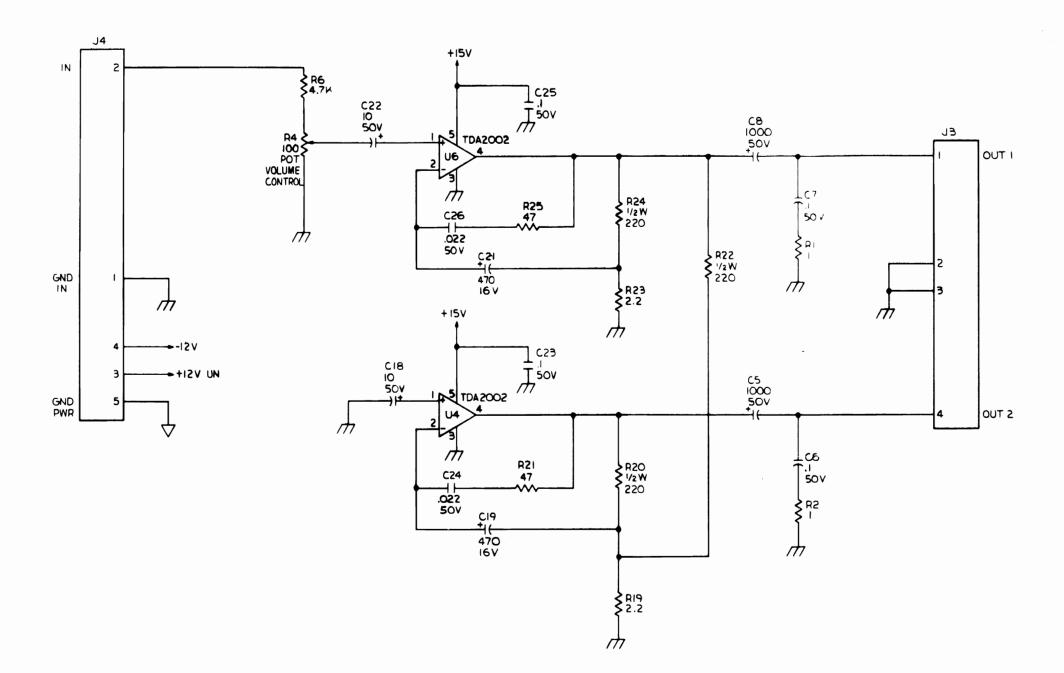
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PCB ASSEMBLY, AUDIO 6VB (006-8002-10-0B) (M051-00C52-B015) PARTS LIST - SHEET 4 of 4

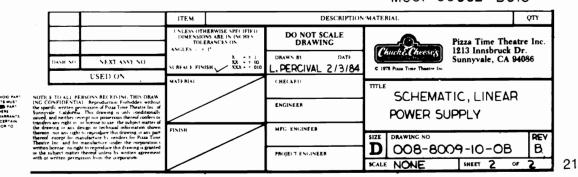
TTEM	QIY.	PART NO.	REFERENCE	DESCRIPTION
61	1	820-0003-01	XTL-1	CRYSTAL 8.000MHZ
62	1	850-0007-01	HS-1	HEATSINK, THM-6070
63	1	310-0015-01	C120	CAP, TANT, RAD, 47UF, 15V, 20%
64	2	400-2703-01	R33,34	RES,CF,1/4W,5%,270K OHM
65	1	400-2700-01	R52	RES,CF,1/4W,5%,270 OHM
66	3	801-0632-06-01		SCREW PAN HD-PHIL 6-32X 3/8
67	3	822-0006-00-01		WASHER SPLITLOCK 6
6 8	3	816-0632-00-01		NUT, HEX, SM PAT, 6-32
69	1	007-8002-01-0A		PCB, FAB, AUDIO, 6VB
70	1	850-0008-01	HS-2	HEATSINK, THM-6071

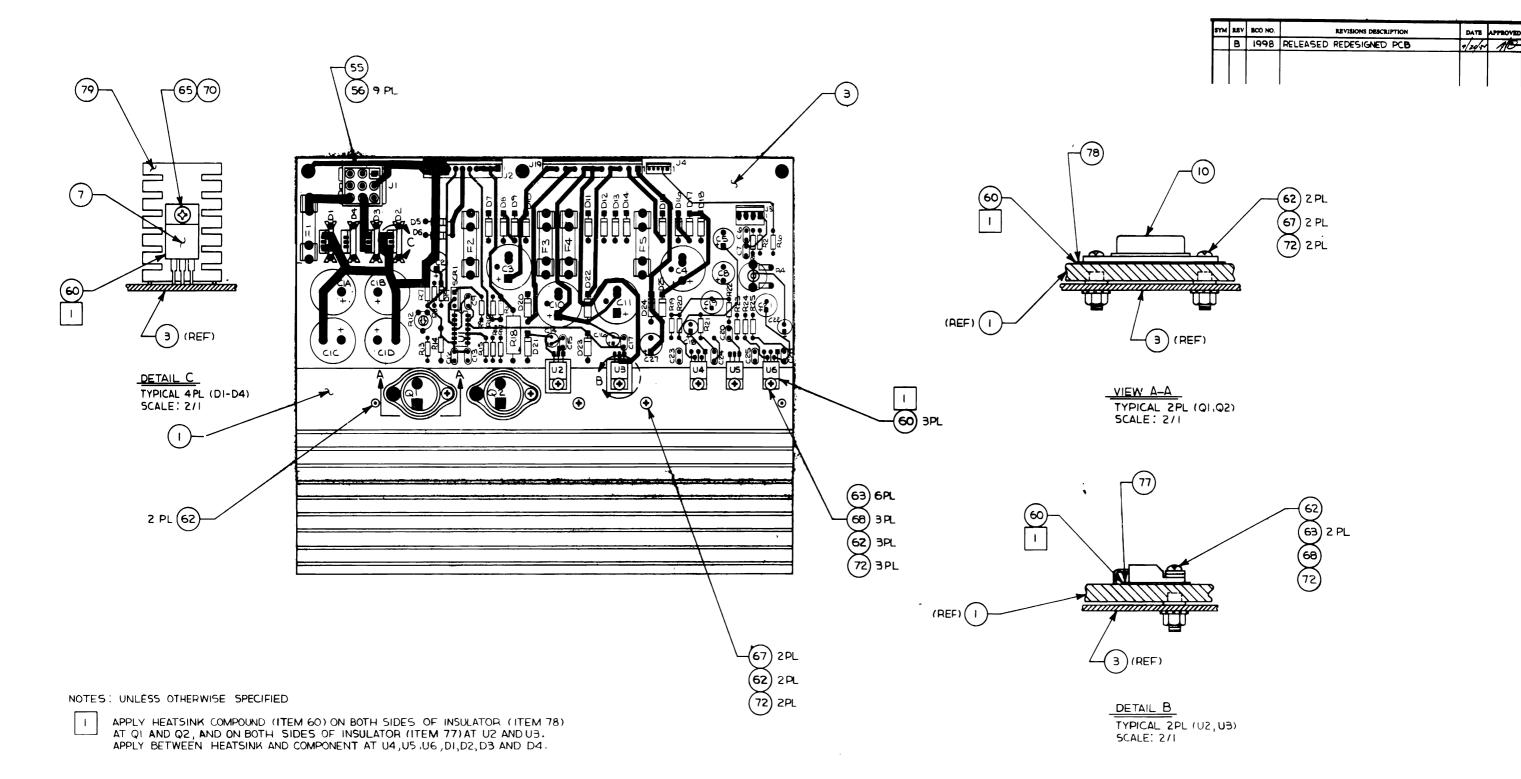


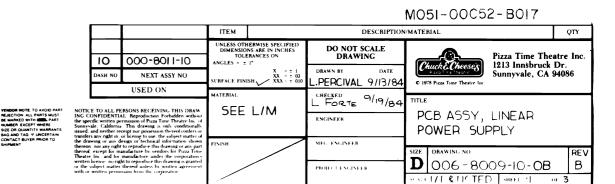




M051-00C52-B018







PCB ASSEMBLY, LINEAR POWER SUPPLY (006-8009-10-0B) (M051-00C52-B017) PARTS LIST - SHEET 2 of 3

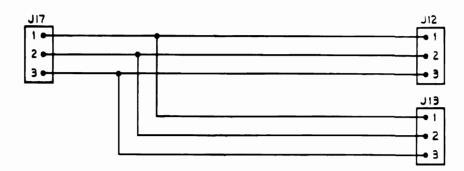
TTEM	QTY.	PART NO.	REFERENCE	DESCRIPTION
1 2	1	001-8076-01-0B		HEATSINK,E-368/#5555
3 4	1	00 7- 8009 - 10 - 0B		PCB FAB, LINEAR PWR SPLY
5 6	20	100-0008-01	D5-D18,D20-D25	D10,SI,3A,100 PIV,MR501
7	4	105-0004-01	D1-D4	D10,RECTIFIER,16A, MUR1610 CT
8 9	1	110-0004-01	D19	D10, ZEN, 5.6V, 20MA, IN752A
10 11	2	120-0004-01	Q1,Q2	XSTR,SI,NPN,2N3055
12 13	1	160-0004-01	SCR1	SCR,8A,50V,C122F1
14 15	2 1	260-0039-01 260-0042-01	U4,U6 U2	IC,LIN,SP,TDA2002,AUD AMP IC,LIN,VR,MC7912,-12V, 3 POS
16	1	260-0043-01	U 3	IC,LIN,VR,MC7812,+12V, 3 POS
17	1	260-0044-01	U5	IC,LIN,VR,MC7815,+15V, 3 POS
18 19	1	260-0045-01	U1	IC, LIN, VR, MC1723, SI, MONO
20	9	300-0002-01	C6,C7,C12,C13,C15,C17,C20,C23,C25	CAP, CER, RAD, .1MF, 50V
21	2	300-0001-01	C24,C26	CAP, CER, RAD, .022UF, 50V, 20%
22	1	320-0007-01	C9	CAP, MIC, RAD, 100PF, 500V, 5%
23				
24	4	340-0026-01	C14,C16,C18,C22	CAP, ELC, RAD, 10MF, 50V, 20%
25	2	340-0027-01	C19,C21	CAP, ELC, RAD, 470MF, 16V, -10%, +50%
26	4	340-0028-01	ClA,ClB,ClC,ClD	CAP, ELC, RAD, 10.000MF, 16V +10%, -30%
27	4	340-0029-01	C3,C4,C10,C11	CAP, ELC, RAD, 6800MF, 25V, -10%, +30%
2 8	4	340-0030-01	C2,C5,C8,C27	CAP, ELC, RAD, 1000MF, 50V, 20%
29				
30	2	400-1000-01	R8,R16	RES,CF,1/4W,5%,100 OHM
31	2	400-1008-01	R1, R2	RES,CF,1/4W,5%,1 OHM
32			• .	
33	2	400-1007-01	R7,R11	RES,CF,1/4W,5%,10 OHM
34				DDG 00 1 (10 50 1 50 1 50
35 36	1	400-1501-01	R13,R10	RES,CF,1/4W,5%,1.5K OHM
36 37	1	400-2200-01	R15	RES,CF,1/4W,5%,220 OHM

PCB ASSEMBLY, LINEAR POWER SUPPLY (006-8009-10-0B) (M051-00C52-B017) PARTS LIST - SHEET 3 of 3

ITEM	QIY.	PART NO.	REFERENCE	DESCRIPTION
			-10 -00	1 /#x Fo o o our
38	2	400-2208-01	R19,R23	RES,CF,1/4W,5%,2.2 OHM
39	_			DDG GD 1 /411 FO 0 BW 0111
40	1	400-2701-01	R17	RES,CF,1/4W,5%,2.7K OHM
41	1	400-3900-01	R9	RES,CF,1/4W,5%,390 OHM
42	2	400-4701-01	R6,R14	RES,CF,1/4W,5%,4.7K OHM
43	2	400-4707-01	R21,R25	RES, CF, 1/4W, 5%, 47 OHM
44	1	480-0007-01	R12	RES, VAR, STR, TRIM, 1K OHM
45	1	480-0008-01	R4	RES, VAR, STR, TRIM, 100 OHM
46	3	410-2200-01	R20,22,24	RES, CF, 1/2W, 5%, 220 OHM
47	1	440-0508-01	R18	RES, WW, 5W, 10%, .05 OHM
48				
49			_	
50	1	550-0067-01	J3	CONN, PC, 4P, M, 09-74-1041
51	1	550-0068-01	J 4	CONN, PC, 5P, M, 22-23-2051
52				
53	1	550-0102-01	J2	CONN, PC, 11P, M, 09-74-1111
54	1	550-0103-01	J19	CONN, PC, 11P, M, 10-19-1111
55	1	550-0110-01	J1	CONN,PC,9P,PLG,19-09-2099
56	9	550-0111-01	Jl	CONN, PIN, M, PC, 02-09-8113
57				
58	10	580-0070-01	F1 - F5	FUSE,CLIP,PC,1/4"
59				
6 0	A/R	790-0007-01		THERMAL JOINT COMPOUND
61				
62	13	800-0240-01		BUSHING, INSULATED, NYLON
63	10	800-0241-01	U2 - U6	WSHR, RECTANGULAR, METAL, #6
64				
65	4	801-0440-04-01	D1-D4	SCREW, PH,PH,4-40 X 1/4"
66				
67	6	801-0632-08-01	Q1,Q2	SCREW, PH, PH, 6-32 X 1/2"
68	5	801-0632-10-01	U 2- U6	SCREW, PH, PH, 6-32 X 5/8"
69	_			N T
70	4	812-0440-00-01	D1-D4	NUT, HEX, 4-40
71				ATTENDED C 22
72	11	813-0632-00-01		NUT, HEX, KEP, 6-32
73			70 7F	DIACE AND AN AFOUR PACE
74	4	830-0019-01	F2 - F5	FUSE, 3AG, 3A, 250V, FAST
		020 0000 01	n1	ACTING
7 5	1	830-0020-01	Fl	FUSE, 3AB, 10A, 250V, SLO-BLO
76	•	050 0000 01	113 113	THELITATION MICA TO-220
77	2	850-0009-01	U2,U3	INSULATOR, MICA, TO-220
78	2	850-0010-01	Q1,Q2	INSULATOR, MICA, TO-3
79	4	850-0011-01	D1-D4	HEATSINK,PC MOUNT,VERT, TO-220
				10-220

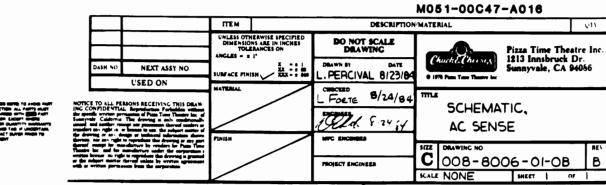
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SYM	MEV	800 MO.	REVISIONS DESCRIPTION	DATE	APPROVED
	В	1994	DELETED UI,UZ,RI AND JIB	16. 6	12-
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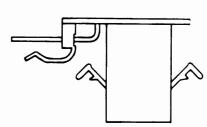


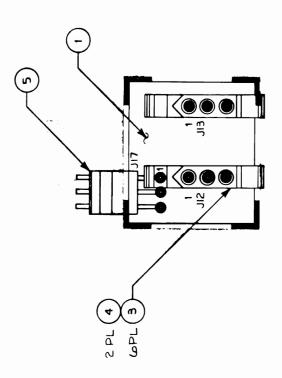
NOTES: UNLESS OTHERWISE SPECIFIED

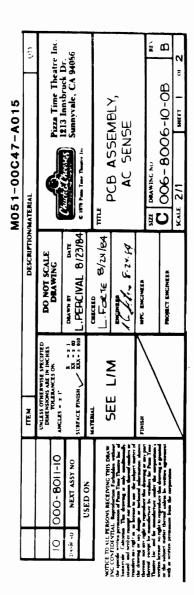
I. A. PINS 143-AC POWER B. PIN 2-CHASSIS GROUND







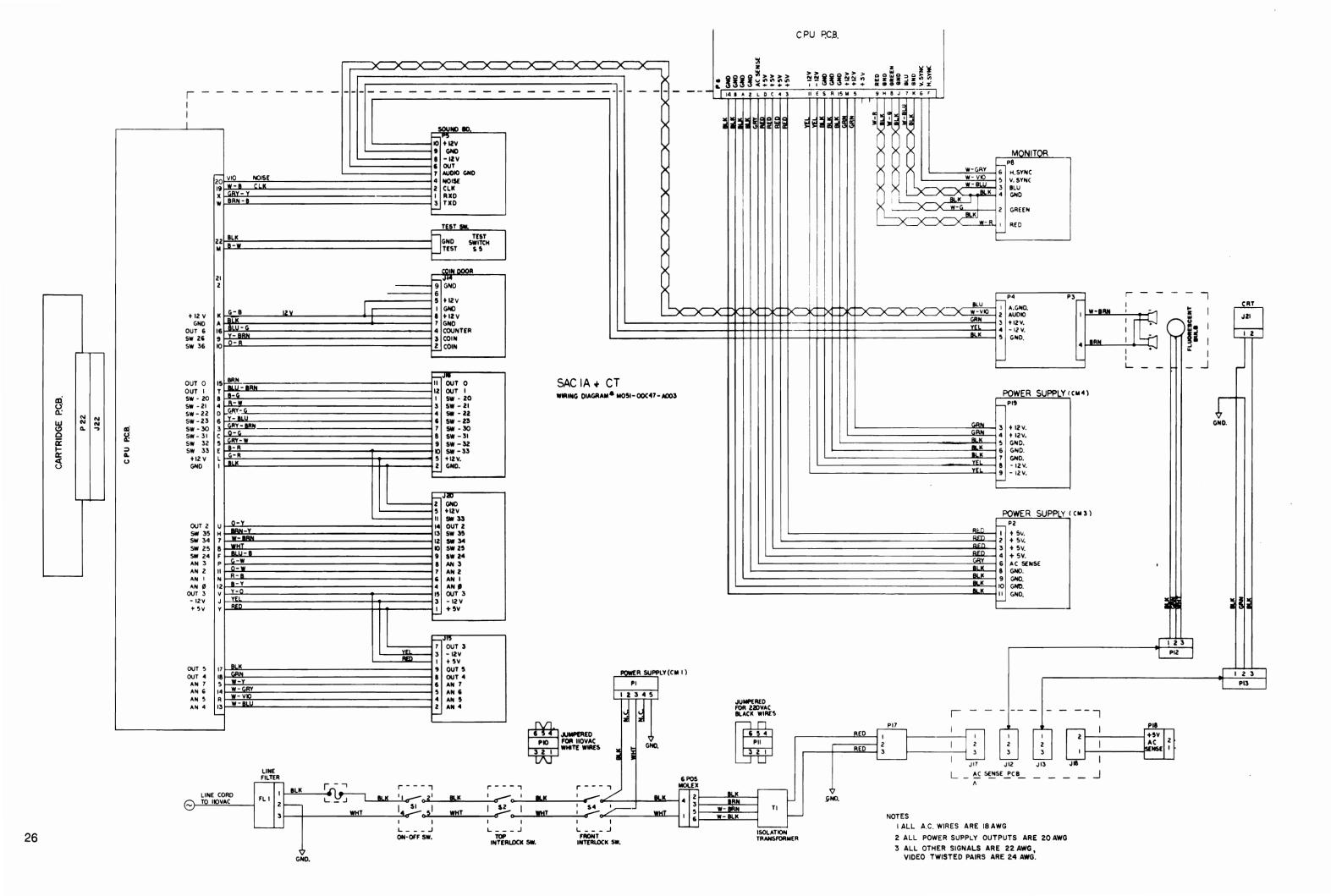






PCB ASSEMBLY, AC SENSE (006-8006-10-0B) (M051-00C47-A015) PARTS LIST (Page 2 of 2)

ITEM	QTY.	PART NO.	REFERENCE	DESCRIPTION
1	1	007-8006-01-0B		PCB FAB, AC SENSE
3	6	550-0018-01		CONN, PC, F, PINS, MLX 02-09-1134
4 5	2 1	550-0069-01 550-0087-01	J12,J13 J17	CONN,PC,3P,F,MLX 03-09-1031 CONN,PC,3P,M,MLX 09-75-1038



WARNING

THIS GAME MUST BE GROUNDED. FAILURE TO DO SO MAY RESULT IN DESTRUCTION TO ELECTRONIC COMPONENTS.

WARNING: This equipment generates, uses, and can radiate radio frequency energy and if not and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a CLASS A computing device pursuant to SUBPART J of PART 15 of FCC RULES, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference

ELECTRICAL BULLETIN: FOR ALL APPARATUS COVERED BY THE CANADIAN STANDARDS ASSOCIATION (CSA) STANDARD C22.2 NO. 1, WHICH EMPLOYS A SUPPLY CORD TERMINATED WITH A POLARIZED 2-PRONG ATTACHMENT PLUG.

CAUTION:

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR. UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

(Sally MIDWAY

Invites You To Use

OUR TOLL FREE NUMBERS FOR SERVICE INFORMATION CONCERNING THIS GAME, OR ANY OTHER BALLY MIDWAY GAME YOU NOW HAVE ON LOCATION.

CALL US FOR PROMPT, COURTEOUS ANSWERS TO YOUR PROBLEMS. **VIDEO** —— Continental U.S. 1-800-323-7182

PINBALL — Continental U.S. 1-800-323-3555

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